ABSTRACT

A method of enhancing inductor performance comprising the following steps. A structure having a first oxide layer formed thereover is provided. A lower low-k dielectric layer is formed over the first oxide layer. A second oxide layer is formed over the lower low-k dielectric layer. The second oxide layer is patterned to form at least one hole there through exposing a portion of the lower low-k dielectric layer. Etching through the exposed portion of the lower low-k dielectric layer and into the lower low-k dielectric layer to from at least one respective air gap within the etched lower low-k dielectric layer. An upper low-k dielectric layer is formed over the patterned second oxide layer. At least one inductor is formed within the upper low-k dielectric layer and over the at least one air gap whereby the performance of the inductor is enhanced.